

### ABSTRACT OF THE DISCLOSURE

A coated heat spreader for a die includes a body and a coating on a surface of the body, wherein the outermost coating is an organic surface protectant. An IC package includes a die thermally coupled to a heat spreader coated with an organic surface protectant. A PCB assembly including a die thermally coupled to a heat spreader coated with an organic surface protectant, where the die is part of an IC package or is directly attached to the PCB. A method of making a coated heat spreader includes coating the organic surface protectant onto a surface of the heat spreader.